PM-32 Reg # 9150-2 1 of 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Thomas M. Dwyer
International Dioxcide, Inc.
136 Central Ave.
Clark, NJ 07066

MAR 24 1997

Subject: Anthium Dioxcide
EPA Registration No. 9150-2
Your Labeling Dated July 17, 1996

Dear Mr. Dwyer:

This is in response to your amendment to add the use for control of mollusks in once-through cooling water systems.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments listed below. The proposed label addition has been added to the most recently EPA-accepted labeling in the enclosed copy, in order to represent the complete accepted labeling.

1. The dental pumice disinfection use must be deleted (as shown in the enclosed stamped copy) as per the Agency letter dated July 18, 1995.

2. As per the Agency letter dated August 7, 1995, on page "1" revise the directions "To control the buildup of odor and slime forming bacteria in process waters for vegetable rinses..." by including an instruction to rinse the vegetables with potable water after treatment.

3. One copy of the finished labeling must be submitted prior to releasing the product for shipment bearing the amended labeling.

If you have any questions about these comments, please call Wallace Powell at 703-308-6407.

Sincerely,

Robert S. Brennis
Acting Product Manager 32
Antimicrobial Program Branch
Registration Division (7504C)

CONCURRENCES								
SYMBOL								
SURNAME								
DATE								

EPA Form 1320-1A (1/90) *Printed on Recycled Paper* OFFICIAL FILE COPY

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Avoid contact with skin, eyes or clothing.

STATEMENT OF PRACTICAL TREATMENT

If Swallowed: Drink promptly a large quantity of water. Do not induce vomiting. Avoid alcohol. Get medical attention.

If In Eyes: Flush with plenty of water for 15 minutes. Get medical attention.

If On Skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

ENVIRONMENTAL HAZARD

This product is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL AND PHYSICAL HAZARDS

Stabilized Chlorine Dioxide is a strong oxidizing agent. Contamination with other materials such as acids, toxic chlorine, organic chemicals, etc., may cause a chemical reaction, resulting in evolution of chlorine dioxide gases and heat. Explosion and/or fire could result. Chlorine dioxide is a poisonous explosive gas. Keep all chemical and foreign materials away from this solution.

STORAGE AND DISPOSAL

Do not store with easily oxidizable materials, acids, reducers and combustible material. Avoid heat or freezing conditions. Store upright and do not stack drums over 2 high on pallets or partially filled drums. Use of a drum pump is suggested. Keep drum tightly closed when not withdrawing liquid. In case of spills, dilute with large quantities of water. Do not allow liquid to dry because this could present a fire hazard. Store only in the original container and take care to prevent cross contamination with other pesticides, fertilizer, food and feed.

EMERGENCY HANDLING: In case of contamination or decomposition, do not reseal container. Isolate in an open, well ventilated area. Flood with large volumes of water. Cool unopened drums in vicinity by water spray.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

NOTICE: Seller expressly warrants that the product conforms to its chemical description. There are no warranties associated with the sale of this product either express or implied, including but not limited to the warranties of fitness for a particular purpose or use.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Before using this product in the generation of chlorine dioxide for biological control OF

MOLLUSKS SUCH AS ZEBRA MUSSELS etc.

see product data.

PRODUCT DATA - ANTHIUM DIOXCIDE

ANTHIUM DIOXCIDE®

5% AQUEOUS STABILIZED CHLORINE DIOXIDE

FOR INSTITUTIONAL OR INDUSTRIAL USE ONLY

Active Ingredients:	
Chlorine Dioxide:	5%
Inert Ingredients:	95%
	100%

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS

E.P.A. REG. NO. 9150-2 E.P.A. EST. NO. 9150-RI-01

ACCEPTED with COMMENTS In EPA Letter Dated: MAR 24 1997 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9150-2

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INTERNATIONAL DIOXCIDE INC.
CLARK, N.J. 07066

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Directions for use:

For Control of Mollusks in once through water cooling systems.

Add 4.0 gallons of Anthium Dioxcide to 100 gallons of water and add 1 lb. of Activator C (or 6.9 lbs. of Activator K) to the solution with mild stirring for 15 minutes. This produces an activated solution containing 2000 ppm ClO_2. (Use respirator approved for chlorine dioxide use.)

As an alternate activation method, reduce the pH of the above solution to 3.0 with a mineral or organic acid and allow to slowly stir for 1/2 hour before use.

Slug Dose

Add between 2.5 gallons and 12.5 gallons of the above solution per 1000 gallons of water (5 ppm to 25 ppm).

Continuous Dose

Add between 0.125 gallon and 1 gallon of the above solution per 1000 gallons of water (0.25 to 2.0 ppm).

ACCEPTED
with COMMENTS
In EPA Letter Dated:
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Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9150-2

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To control the buildup of odor and slime forming bacteria in process waters for vegetable rinses and associated tanks, flumes and lines.

Directions for Use:

1. All tanks, flumes and lines etc., should be thoroughly cleaned when possible with a suitable detergent and completely rinsed using clean, potable water prior to treatment.

2. Preparation of solution: Chill tanks or vegetable rinse tanks may be batch loaded at start up with 1/3 fl. oz. (10 ml) Anthium Dioxcide per twenty five (25) gallons of potable water (5.0 ppm available ClO_2). Make up waters should be treated using a chemical feed pump or injector system and applied at the rate of 1/3 fl. oz. twenty five (25) gallons potable water. Make up new Anthium Dioxcide solutions daily.

   Optional activated solution - if heavy use of rinse water is expected or if slime buildup is extreme, an additional activation step may be used in preparation of solution.

3. Preparation of activated solution: Prepare in a well ventilated area, avoid breathing any fumes which may be produced while crystals are dissolving. For each 25 gallons of rinse water to be used measure and 1/3 oz. (10 ml) of Anthium Dioxcide and pour into a clean plastic container containing 1 gallon of water. Activate this solution by:

   1) Adding 0.002 grams of Activator C or
   2) Adding 2.2 grams of Activator K or
   3) Adjusting the pH to 4.0 with acetic acid, citric acid, phosphoric acid, sulfuric acid or hydrochloric acid.

   Allow this solution to stand for 15 minutes and then add to 24 gallons of water to give 5 ppm chlorine dioxide. Chill tanks or vegetable rinse tanks may be batch loaded at start up with activated Anthium Dioxcide solution with 1/3 fl. oz. (10 ml) per twenty five (25) gallons of potable water (5.0 ppm available ClO_2). Make up waters should be treated using a chemical feed pump. In order to insure accurate delivery, a 1 to 10 dilution of the active concentration should be made and the feed rate of 3-1/3 fl. oz. per twenty five (25) gallons should be maintained. Make up fresh Anthium Dioxcide solutions daily.

NOTE: Chemical feed pumps and injectors must be chlorine resistant for best operation. Available ClO_2 levels should be confirmed using an IDI test kit, available from International Dioxcide, Inc.

ACCEPTED with COMMENTS In EPA Letter Dated: MAR 21 1997 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9150-2

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For use in the preparation of fruits and vegetables to extend freshness and shelf life.

Directions for Use:

1. Before treatment, whole fruits and vegetables should be washed and thoroughly rinsed with clean potable water.

2. In a 1 gallon container, add 1/3 fl. oz. (10 ml) of Anthium Dioxcide and add 0.002 grams of Activator C or adjust the pH to 4.0 with vinegar. Allow to stand for 15 minutes then add to 24 gallons of water.

PRE-TREATMENT FOR UNCUT, UNPEELED FRUITS AND VEGETABLES.

3. Dip produce in treatment solution for about ten (10) to twenty (20) seconds, then follow with a potable water rinse.

To control the build-up of odor and slime forming bacteria in stainless steel transfer lines and on-line equipment such as hydrocoolers, pasteurizers and the like overnight and over weekends.

Directions for Use:

1. Clean equipment or line thoroughly using a suitable detergent followed by a clean, potable water rinse before treatment.

2. Preparation and application of solution: For each ten (10) gallons of volume in lines and/or equipment, add 0.5 fl. oz. of Anthium Dioxcide (20 ppm available ClO_2) to potable make up water. Mix and fill lines and equipment overnight. Drain and allow to air dry just prior to next run start-up.

IN LABORATORIES, HOSPITALS, MORGUES, INSTITUTIONS

To disinfect non-porous, hard surfaces such as tile floors, walls and ceilings and stainless steel cold rooms and walk-in incubators.

Directions for Use:

1. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.

2. Preparation of active disinfecting solution: Place 1-1/3 fl. oz. of Anthium Dioxcide concentrate in one gallon of water into a

clean, plastic pail, and add 1.2 grams of Activator-C. This will yield a working solution containing 500 ppm available chlorine dioxide. Prepare in a well ventilated area, avoid breathing any fumes which may be produced during activation. Allow 15 minutes reaction time and for activator to dissolve completely. As an alternate activation method, adjust the pH of the diluted Anthium Dioxcide to 4.0 with acetic, citric phosphoric, sulfuric or hydrochloric acid, or add 8.6 grams of Activator K.

3. To apply: Activated solutions may be sprayed, mopped or sponged onto surfaces to be disinfected. All surfaces must be thoroughly wetted for at least ten (10) minutes. When spraying disinfectant solutions, use an appropriate spraying device. Active solutions may be irritating when breathed, therefore, always use an applicable NIOSH/MSHA approved respirator appropriate for chlorine dioxide when spraying these solutions. After application, allow to air dry. Treat as required. Always apply freshly made solutions. Never reuse activated solutions.

To disinfect bench tops, biological hoods, incubators, stainless steel equipment and instruments.

Directions for Use:

1. Clean all surfaces thoroughly with a suitable detergent and rinse with water prior to disinfection.

2. Preparation of active disinfectant solution: Place 10 ml of Anthium Dioxcide concentrate into a clean, plastic pail and add 1 liter of potable water and 0.3 grams of Activator C. Prepare in a well ventilated area, avoid breathing any fumes which may be produced while reacting. Allow fifteen (15) minutes reaction time and for the activator to dissolve completely. This will yield a working solution containing 500 ppm available chlorine dioxide. As an alternate activation method, adjust the pH to 4.0 with acetic, citric, phosphoric, sulfuric or hydrochloric acid, or add 2.4 grams of Activator K.

3. To apply: Activated solutions may be squirted directly onto surfaces from a plastic squeeze bottle or may be used as a soak solution. All contact surfaces must be thoroughly damp for at least ten (10) minutes. Allow to air dry. Activated solutions of Anthium Dioxcide, stored in plastic squirt bottles, may be held up to one (1) week before replacement with fresh solution. Soak solutions of Anthium Dioxcide should be changed daily.

ACCEPTED with COMMENTS in EPA Letter Dated: MAR 24 1997
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended for the pesticide registered under EPA Reg. No. 91502

To disinfect water bath incubators.

Directions for Use:

1. Prior to disinfection, thoroughly clean the reservoir with a suitable detergent and rinse with clean water.

2. Preparation of active disinfectant solution: Place 0.13 fl. oz. of Anthium Dioxcide concentrate into a clean glass or plastic container, add one (1) gallon of clean, potable water and add 0.3 grams of Activator-C (50 ppm available chlorine dioxide). Prepare in a well ventilated area, avoid breathing any fumes which may be produced during activation. Allow fifteen (15) minutes reaction time and for activator to dissolve completely. As an alternate activation method, adjust the pH to 4.0 with acetic, citric, phosphoric, sulfuric or hydrochloric acid, or add 8.6 grams of Activator K.

3. To apply: Activated solution should be poured into waterbath reservoir and allowed to stand one (1) hour at room temperature. Drain reservoir and fill with fresh water.

To control odor and slime forming bacteria in waterbath incubators.

Directions for Use:

1. When using Anthium Dioxcide in waterbath incubators, always begin with a freshly cleaned and disinfected reservoir.

2. To apply: Fill waterbath with clean, potable water to near capacity. For each gallon of water add 0.13 oz. Anthium Dioxcide (50 ppm available ClO_2) or 1.0 ml Anthium Dioxcide per liter of water. When water becomes cloudy, discard water and repeat procedure.

To control odors resulting from the sterilization of spent biologicals in steam autoclaves.

Directions for Use:

1. To reduce autoclave odors of used biologicals, Anthium Dioxcide should be sprayed or poured directly into the stainless steel autoclave buckets.

2. Preparation of solution: Place 2-2/3 fl. oz. of Anthium Dioxcide concentration per gallon of working solutions (1,000 ppm available ClO_2) or 20.0 ml Anthium Dioxcide per one (1) liter of

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water into a clean glass or plastic container and mix. Dilute concentrate to one (1) gallon clean, potable water per each 2-2/3 oz. or to one (1) liter per each 20.0 ml.

3. To apply: Spray or pour Anthium Dioxcide solution into or onto the autoclave buckets just prior to autoclaving.

To deodorize animal holding rooms, sick rooms, morgues and work rooms.

Directions for Use:

1. Rooms to be deodorized should be in a clean condition prior to Anthium Dioxcide application.

2. Preparation of solution: Place 2-2/3 fl. oz. Anthium Dioxcide concentrate per one (1) gallon of working solution or 20 ml per one (1) liter working solution (1,000 ppm available chlorine dioxide) into a clean glass or plastic container. Dilute concentrate to one (1) gallon clean potable water for each 2-2/3 fl. oz. or to one (1) liter for each 20 ml Anthium Dioxcide.

3. To apply: Spray solution using a suitable spraying device onto walls, ceilings and floors; lightly dampening all surfaces. Avoid breathing mist of solutions by using an applicable NIOSH/MSHA approved respirator appropriate for chlorine dioxide. Allow to air dry, then ventilate the area. Treat as required.

For use in dental offices and laboratories as a dental pumice disinfectant.

Directions for Use:

1. Prepare solution in a well ventilated area. To make one (1) liter of solution (500 ppm available ClO_2) pour 10.0 ml (approximately 0.4 fl. oz.) of Anthium Dioxcide concentrate into a clean glass or plastic container. Add one (1) liter of clean potable water to this, add 0.3 grams of Activator-C and mix slightly, allowing 15 minutes reaction time and for activator to dissolve completely. Avoid breathing any fumes which may be produced during activation. As an alternate activation method, adjust the pH to 4.0 with acetic, citric, phosphoric, sulfuric or hydrochloric acid, or add 8.6 grams of Activator K.

2. To apply: The working solution can be conveniently contained in a one (1) liter plastic "squeeze" bottle for up to one (1) week. Apply to dry pumice powder exactly as water to produce the pumice

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Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9150-2

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slurry. Apply additional working solution as needed to reconstitute dried out slurry to appropriate viscosity. Anthium Dioxcide will keep pumice slurry thoroughly disinfected. New Anthium Dioxcide solution should be made up fresh weekly.

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IN ANIMAL REARING & CONFINEMENT FACILITIES

To disinfect commercial animal confinement facilities such as poultry houses, swine pens, calf barns and kennels.

Directions for Use:

1. Remove all animals and feed from premises, vehicles, enclosures, coops and crates.

2. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals.

3. Empty all troughs, racks and other feeding and watering appliances.

4. Thoroughly clean all surfaces with soap and detergent and rinse with water.

5. Preparation of active disinfectant solution: Place 1-1/3 fl. oz. Anthium Dioxcide concentrate into a clean, plastic pail, add one (1) gallon of clean potable water and 1.2 grams of Activator-C. Prepare in a well ventilated area. Avoid breathing any fumes which may be produced or allow fifteen (15) minutes reaction time and for activator to dissolve completely. This will yield a working solution containing 500 ppm of available chlorine dioxide. As an alternate activation method, adjust the pH to 4.0 with acetic, citric, phosphoric, sulfuric or hydrochloric acid, or add 8.6 grams of Activator K.

6. To apply: Using commercial sprayer, saturate all surfaces with the activated Anthium Dioxcide solution for a period of ten (10) minutes. Active solutions may be irritating when breathed, therefore, always use an applicable NIOSH/MSHA approved respirator appropriate for chlorine dioxide when spraying these solutions. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure.

7. After treatment, ventilate buildings, coops or other enclosed spaces and allow to air dry. Repopulate when solution has dried.

8. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before use.

To control the build-up of odor and slime forming bacteria in animal confinement areas.

Directions for Use:

1. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, cases and other facilities and fixtures occupied or traversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with clean water.

2. Preparation of solution: Place 2-2/3 fl. oz. Anthium Dioxcide concentrate per gallon of working solution (1,000 ppm available ClO_2) into a clean, plastic pail. Dilute concentrate with one (1) gallon clean, potable water for each 2-2/3 fl. oz. Anthium Dioxcide.

3. To apply: Using a commercial sprayer, saturate all surfaces with the Anthium Dioxcide solution. When spraying Anthium Dioxcide solutions, always use an applicable NIOSH/MSHA approved respirator appropriate for chlorine dioxide to avoid breathing mist.

To control animal odors on pets and in litter boxes, carpets and concrete floors.

Directions for Use:

1. For litter boxes: Wash out litter boxes with suitable detergent and rinse with clean, potable water. Soak overnight in solution of one (1) oz. Anthium Dioxcide per 2-1/2 quarts of water (625 ppm available chlorine dioxide). Add litter, sprinkle surface liberally with Anthium Dioxcide solution.

2. For controlling odors in carpets: Add 1-1/4 oz. Anthium Dioxcide per gallon (500 ppm available chlorine dioxide) of either rug shampoo mix or 1-1/4 oz. Anthium Dioxcide per each gallon of rinse water. Shampoo carpets. Allow to air dry. CAUTION: Anthium Dioxcide may bleach some carpets and fabrics, especially if applied on top of another chemical agent. Do not apply until a sample test has been tried and observed for at least 24 hours.

3. For concrete floors: Clean floor thoroughly using a suitable detergent; rinse with clean water. Prepare solution by adding 3-1/4 oz. (1250 ppm available chlorine dioxide) Anthium Dioxcide per gallon of water. Mop or spray solution liberally onto floor. Allow to air dry.

ACCEPTED with COMMENTS in EPA Letter Dated: MAR 24 1997

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9150-2

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4. For animal baths: Wash animal well with appropriate pet shampoo; rinse with clean water. Prepare solution by adding 1/4 oz. Anthium Dioxcide (100 ppm available chlorine dioxide) per gallon of water. Rinse animal thoroughly with prepared solution. Allow to air dry. Avoid direct contact with animal's eyes, nose and ears.

5. For treating animal odors with high levels of ammonia: Wash area thoroughly with suitable detergent and rinse with clean water. Preparation of solution: For each gallon of solution, place 1-2/3 oz. Anthium Dioxcide into a clean, plastic container. To this concentrate add 1 tablespoon household bleach and allow to react for five (5) minutes. Dilute with 1 gallon clean, potable water. Apply by mopping or spraying solution liberally onto area. Allow to air dry. Additional applications may be necessary.

ACCEPTED with COMMENTS In EPA Letter Dated: MAY 24 1997 Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 91502

IN WATER TREATMENT AND WATER STORAGE SYSTEMS

To disinfect water storage systems aboard aircraft, boats, RV's, off-shore oil rigs, etc.

Directions for Use:

1. Prior to disinfection, tanks should be cleaned using a suitable detergent and thoroughly flush with clean, potable water. There is both a ten (10) minute and a one (1) hour disinfection procedure to choose from.

2. Preparation of active solution: For ten (10) minute procedure: Place 1-1/3 fl. oz. of Anthium Dioxcide concentrate per gallon of working solution (500 ppm available chlorine dioxide) into a clean plastic container dilute with clean potable water and add 1.2 grams of Activator-C. Prepare in a well ventilated area. Avoid breathing any fumes which may be produced while activator is dissolving. Allow fifteen (15) minutes reaction time and for activator to dissolve completely. As an alternate activation method, adjust the pH to 4.0 with acetic, citric phosphoric, sulfuric or hydrochloric acid, or add 8.6 grams of Activator K. Pour activated solution into tank, filling the tank completely, at the rate of one gallon for each 1-1/3 fl. oz. Anthium Dioxcide. Bleed air out of lines and allow to stand at least ten (10) minutes. Drain tank and lines and flush with potable water. For one (1) hour procedure: Place 1-1/3 fl. oz. of Anthium Dioxcide concentrate and ten (10) gallons of water (50 ppm available chlorine dioxide) into a clean plastic container and add 1.2 grams of Activator-C. Prepare in a well ventilated area. Avoid breathing any fumes which may be produced while activator is dissolving. Allow fifteen (15) minutes reaction time and for

activator to dissolve completely. As an alternate activation method, adjust the pH to 4.0 with acetic, citric, phosphoric, sulfuric or hydrochloric acid, or add 8.6 grams of Activator K. Pour activated solution into tank and dilute with clean, potable water, filling the tank completely, at the rate of ten (10) gallons for each 1-1/3 fl. oz. Anthium Dioxcide. Bleed air out of lines and allow to stand at least one (1) hour. Drain tank and lines then fill with potable water.

To control build-up of slime and odor causing bacteria and enhance the taste of stored potable water.

Directions for Use:

1. Prior to treatment of potable water, thoroughly clean and disinfect the water storage system to ensure a sanitary condition. Thoroughly rinse with clean, potable water.

2. Potable water should be treated at a rate of one (1) fl. oz. Anthium Dioxcide per 75 gallons potable water (5 ppm available ClO_2) and may be injected or batch treated.

3. Water storage tank should be sufficiently sealed to prevent outside contamination and direct sunlight.

4. Using an IDI test kit, confirm the chemical level to be 5 ppm and check to see this level does not fall below 1 ppm.

To help remove off odors and tastes from municipal well waters.

Directions for Use:

1. Anthium Dioxcide should be injected into the incoming water main using a chemical proportioning pump or injector at a rate of 1.0 fl. oz. Anthium Dioxcide per 375 gallons water (1.0 ppm available ClO_2).

2. Confirm pump or injector accuracy using an IDI test kit and adjust accordingly.

3. Anthium Dioxcide levels should be checked weekly.

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IN MUSHROOM FACILITIES, SUCH AS MUSHROOM PRODUCTION, SPAWN PRODUCTION, MUSHROOM PROCESSING, AND CANNERY OPERATIONS

As a terminal sanitizing rinse for stainless steel tanks, transfer lines, on-line equipment, picking baskets, picking utensils and other food contact surfaces.

Directions for Use:

1. All gross food particles and soil should be removed prior to sanitizing by use of a pre-flush, pre-scrape or pre-soak treatment.

2. Clean picking baskets, line equipment or other surface thoroughly using a suitable detergent and rinse with clean potable water before sanitizing.

3. Preparation of sanitizing solution: Place 1-1/3 fl. oz. of Anthium Dioxcide concentrate into a clean plastic pail or drum, add five (5) gallons of clean potable water and add 1.2 grams of Activator-C. Prepare in well ventilated area. Avoid breathing any fumes which may be produced while activator is dissolving. Allow fifteen (15) minutes reaction time for activator to dissolve completely. This will yield a working solution containing 100 ppm available chlorine dioxide. As an alternate activation method, adjust the pH to 4.0 with acetic, citric, phosphoric, sulfuric or hydrochloric acid, or add 10 grams of Activator K.

4. To apply: Flush picking baskets, line equipment or other food contact surface with active solution making sure surface area is thoroughly wet for at least one (1) minute. After sanitizing drain baskets or equipment and allow to air dry. Treat after each use or production run. Discard solution after each use.

To disinfect walls, ceilings and floors.

Directions for Use:

1. Before disinfection, all gross filth must be removed from areas to be disinfected and thoroughly cleaned with a suitable detergent followed by a clean, potable water rinse.

2. Preparation of active disinfecting solution: Place 1-1/3 fl. oz. of Anthium Dioxcide concentrate per gallon of working solution (500 ppm available chlorine dioxide) into a clean, plastic pail. Add one gallon of clean, potable water and add 1.2 grams of

Activator-C. Prepare in well ventilated area, avoid breathing any fumes which may be produced while activator is dissolving. Allow fifteen (15) minutes reaction time for activator to dissolve completely. This will yield a working solution containing 500 ppm of available chlorine dioxide. As an alternate activation method, adjust the pH to 4.0 with acetic, citric, phosphoric, sulfuric or hydrochloric acid, or add 8.6 grams of Activator K.

3. To apply: Spray disinfectant solution onto surface using a suitable spraying device and making sure that the area is thoroughly wet for at least ten (10) minutes. Active solutions may be irritating when breathed, therefore, always use an applicable NIOSH/MSHA approved respirator appropriate for chlorine dioxide when spraying these solutions. After application, allow to air dry. Treat as required. Always apply freshly made solutions. Never reuse activated solutions.

To control mold and slime forming bacteria on walls, floors, ceilings, and post-crop mushroom growing surfaces.

Directions for Use:

1. Before treatment, all soil and gross filth must be removed from areas to be treated and cleaned with detergent followed by a potable water rinse.

2. Preparation of solution: Place 2-2/3 fl. oz. of Anthium Dioxcide concentrate per gallon of working solution (1,000 ppm available ClO_2) into a clean, plastic pail or drum and dilute with clean, potable water.

3. To apply: Drench, spray or fog solution on walls, floors, ceilings and post-crop mushroom growing surface using a suitable watering, spraying or fogging device and making sure all surface areas are wet. During application, area must be closed as tightly as possible and sealed. After spraying or fogging, the area should be opened and aired for one (1) hour before repopulating. Avoid breathing solution mist by use of an applicable NIOSH/MSHA approved respirator appropriate for chlorine dioxide. Avoid contact with food or food contact surfaces. Allow to air dry.

4. Repeat application as needed.

ACCEPTED with COMMENTS in EPA Letter Dated: MAR 21 1997 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9150-2